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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,720	07/16/2003	Charles Edward Akers JR.	2001-0879.02	9579

21972 7590 03/02/2005

LEXMARK INTERNATIONAL, INC.
INTELLECTUAL PROPERTY LAW DEPARTMENT
740 WEST NEW CIRCLE ROAD
BLDG. 082-1
LEXINGTON, KY 40550-0999

EXAMINER

RAJGURU, UMAKANT K

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 03/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/620,720

Applicant(s)

AKERS ET AL.

Examiner

Umakant K. Rajguru

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. An amendment had been filed on Oct. 29, 2004.
2. Claims under examination are 1-28.
3. All previous rejections of claims 1-28 (see items 5, 7, 8 and 9 of earlier office action of Oct. 05, 2004) are now withdrawn.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1, 5 and 6 ~~are~~ are rejected under 35 U.S.C. 102(b) as being anticipated by Momose (US 6,695,898).

Momose discloses an aqueous ink composition containing a surface-modified, self-dispersing pigment, an organic amine composition and water (abstract). Carbon black is a suitable pigment (col. 4, line 7).

Above claims therefore lack novelty.

6. Claims 1-4 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Momose (US 6,695,898) in view of Sun (US 6,402,825) and Okoshi et al (US 4,710,230).

Disclosure of Momose, set forth in short above, does not mention acid number of modified carbon black.

Sun discloses carbon black produced by reacting oxidized carbon with a steric inducing compound (abstract). Acid number of such carbon black is 0.5 to 1.5 milli equivalents of COOH/gram (col. 2, lines 59-62).

It would have therefore been obvious to use in the composition of Momose, a surface oxidized carbon of (claimed) acid number range for better dispersibility and stability.

Momose also does not mention an amino functional group containing compound having a ring structure.

Okoshi describes pigment paste comprising a pigment and a dispersing agent. This agent and compounds, which represent this agent read on, those claimed in instant claims 7-9.

It would have been obvious to use in the composition of Momose, the compounds taught by Okoshi for enhancing dispersibility of pigment/s.

7. Claims 1 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Momose (US 6,695,898) in view of Beach et al (US 5,719,204).

Momose does not mention polymeric dispersants.

Beach describes pigmented inks with polymeric dispersants.

Hence it would have been obvious to include in the composition of Momose, the polymeric dispersant of Beach to ensure complete dispersibility of all particles of pigment.

8. Claims 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Momose (US 4710230) in view of Sun (US 6402825) and Okoshi et al (US 4710230).

Disclosures of these references are set forth in item 6 above.

It is noted that Momose and Okoshi individually or jointly do not mention (claimed) stabilizing layer of an amine compound over the pigment. It is the examiner's

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position that prior art satisfies this limitation because when the ingredients of composition of prior art are mixed, the amine compound is very likely to form a layer on the surface of particles of pigments, unless proved to be otherwise.

It would have been obvious to include in the composition of Momose (a) surface-oxidized carbon black (of Sun) for better dispersibility as well as and stability and (b) compounds (of Okoshi) for enhancing dispersibility of pigment.

9. Claims 15 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Momose (US 6,695,898) in view of Beach et al (US 5,719,204).

Please see item 7 for disclosures of references and reasons for combination.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

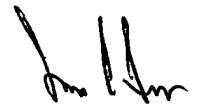
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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Umakant K Rajguru whose telephone number is 571-272-1077. The examiner can normally be reached on Monday thru Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-9306. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Rajguru/LR
January 28, 2005


James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700